Dart Aerospace Ltd.

Date: Thursday, 12/14/2006 3:41:28 PM
User: Kim Johnston

Process Sheet

Customer	: CU-DAR001 Dart Helicopters Services	**Drawing Name**	: SHORT STEP ASSEMBLY HIGH SKID RH
Job Number	: 29969		
Estimate Number	: 10720		
P.O. Number	: N/A	**Part Number**	: D350591214
This Issue	: 12/14/2006 **S.O. No.** : N/A	**Drawing Number**	: D3078 REV A
Prsht Rev.	: NC	**Project Number**	: N/A
First Issue	: N/A **Type** : LARGE FAB ASSY	**Drawing Revision**	: A
Previous Run	: 28817	**Material**	: N/A
Written By	:	**Due Date**	: 1/20/2007 **Qty:** 8 **Um:** Each
Checked & Approved By	: 06 12 15		

Comment : Est Rev:B 05.10.14 Modified step 10 KJ/EC
Est Rev:C 06-06-19 Added D2732-030 AS PER DSI9294 JLM
Est Rev:C 06-06-27 Revised as per DSI9340 JLM

Additional Product

Job Number:

Seq. #:	**Machine Or Operation:**	**Description :**	
1.0	DC	DOCUMENT CONTROL	(8)

Comment: DOCUMENT CONTROL
Photocopy bluefile and type labels as per PPP D350-591-214 CHG002 — KJ 06.12.18

2.0	D2622120C	Extrusion	

Comment: Qty.: 0.5000 Each(s)/Unit Total : 4.0000 Each(s)
Pick:

Qty	Part Number	Description	Batch	
.5.	D2622-120	Extrusion	328215 [illegible]	07.01.18 — 8

3.0	LARGE FAB 1	LARGE FABRICATION RESOURCE 1	

Comment: LARGE FABRICATION RESOURCE 1

1-Cut D2622-120 extrusion to 59.75" long as per Dwg D3078 — 07.01.11 — 8

2-Drill extrusion as per Dwg D3078 using Jig DT8680 for rivets. — 07.01.17 — 8

3-Deburr — 07.01.17 — 8

4.0	QC5	INSPECT WORK TO CURRENT STEP	

Comment: INSPECT WORK TO CURRENT STEP — 07/01/17 (8)

Form: rprocess

Dart Aerospace Ltd

W/O:	WORK ORDER CHANGES					
DATE	**STEP**	**PROCEDURE CHANGE**	**By**	**Date**	**Qty**	**Approval** Chief Eng / Prod Mgr	**Approval** QC Inspector

Part No: ____________________ **PAR #:** _______ **Fault Category:** _________________ **NCR:** Yes No **DQA:** _____ **Date:** _________

QA: N/C Closed: _____ **Date:** _________

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	**STEP**	**Description of NC** Section A	**Corrective Action** Section B			**Verification** Section C	**Approval** Chief Eng	**Approval** QC Inspector
			Initial Chief Eng	**Action Description** Chief Eng	**Sign & Date**			

NOTE: Date & initial all entries

Date: Thursday, 12/14/2006 3:41:28 PM
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Customer: CU-DAR001 Dart Helicopters Services
Drawing Name: SHORT STEP ASSEMBLY HIGH SKID RH

Job Number: 29969
Part Number: D350591214

Job Number:

Seq. #:	Machine Or Operation:	Description :
5.0	D30671	End Plate

Comment: Qty.: 1.0000 Each(s)/Unit Total : 8.0000 Each(s)
Pick:
Qty Part Number Description Batch
1 D3067-1 End Plate 329356

Seq. #:	Machine Or Operation:	Description :
6.0	D30631	Support

Comment: Qty.: 1.0000 Each(s)/Unit Total : 8.0000 Each(s)
Pick:
Qty Part Number Description Batch
1 D3063-1 Support 328241

Seq. #:	Machine Or Operation:	Description :
7.0	LARGE FAB 1	LARGE FABRICATION RESOURCE 1

Comment: LARGE FABRICATION RESOURCE 1

1-Bevel end for welding FWD ONLY

2-Weld Support using Jig DT8681, weld Fwd End Plate as per QSI 004 & Dwg D3078
A/R Aluminum Rod M100237 M19612

3-Grind End Plate flush

Seq. #:	Machine Or Operation:	Description :
8.0	QC9	VISUAL WELDING INSPECTION

Comment: VISUAL WELDING INSPECTION

Seq. #:	Machine Or Operation:	Description :
9.0	QC5	INSPECT WORK TO CURRENT STEP

Comment: INSPECT WORK TO CURRENT STEP

Seq. #:	Machine Or Operation:	Description :
10.0	HAND FINISHING1	HAND FINISHING RESOURCE #1

Comment: HAND FINISHING RESOURCE #1
Chemical Conversion Coat as per QSI 005 4.1

Form: rprocess

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: ____________ **PAR #:** ______ **Fault Category:** ____________ **NCR:** Yes No **DQA:** _____ **Date:** ________

QA: N/C Closed: _____ **Date:** ________

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
			Corrective Action Section B					
DATE	STEP	Description of NC Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Verification Section C	Approval Chief Eng	Approval QC Inspector
07/02/08	12	1 part of D3065-04 B27950 part D3065-5 1 side hole ~~..~~ don't align	07.02.08 [signature]	remove D3065-5 & replace it D 3065-5 B287386 MS20470AD44 M102328	MF 07-02-08	SB 07/02/08	[signature] 08.02.08	[signature] 07.02.08

NOTE: Date & initial all entries

Date: Thursday, 12/14/2006 3:41:28 PM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services **Drawing Name:** SHORT STEP ASSEMBLY HIGH SKID RH

Job Number: 29969 **Part Number:** D350591214

Job Number:

Seq. #:	Machine Or Operation:	Description :
11.0	QC3	INSPECT POWDER COAT/CHEMICAL CONVERSION

Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION 07.02.08 8

12.0	D3065041	Step Leg Assembly

Comment: Qty.: 1.0000 Each(s)/Unit Total : 8.0000 Each(s)
Pick:
Qty Part Number Description Batch
1 D3065-041 Step Leg Assy B27590 = 1 B28939 = 7 07.02.08 8

13.0	D30661	Spacer

Comment: Qty.: 2.0000 Each(s)/Unit Total : 16.0000 Each(s)
Pick:
Qty Part Number Description Batch
2 D3066-1 Spacer B28269 07.02.12 8

14.0	MS20600AD4W4	Rivets

Comment: Qty.: 16.0000 Each(s)/Unit Total : 128.0000 Each(s)
Pick:
Qty Part Number Description Batch
16 MS20600AD4W4 Rivet M103154 07.02.12 8

15.0	LARGE FAB 1	LARGE FABRICATION RESOURCE 1

Comment: LARGE FABRICATION RESOURCE 1
Rivet Leg Assembly as per Dwg D3078. 07.02.12 8

16.0	QC5	INSPECT WORK TO CURRENT STEP

Comment: INSPECT WORK TO CURRENT STEP 07/02/12 (8)

17.0	D30671	End Plate

Comment: Qty.: 1.0000 Each(s)/Unit Total : 8.0000 Each(s)
Pick:
Qty Part Number Description Batch
1 D3067-1 End Plate B30143

 Form: rprocess

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: ____________________ **PAR #:** _______ **Fault Category:** ________________ **NCR:** Yes No **DQA:** _____ **Date:** _________

QA: N/C Closed: _____ **Date:** _________

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Thursday, 12/14/2006 3:41:28 PM
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Process Sheet

Customer: CU-DAR001 Dart Helicopters Services
Drawing Name: SHORT STEP ASSEMBLY HIGH SKID RH

Job Number: 29969
Part Number: D350591214

Job Number:

Seq. #:	Machine Or Operation:	Description :
18.0	LARGE FAB 1	LARGE FABRICATION RESOURCE 1

Comment: LARGE FABRICATION RESOURCE 1

1-Bevel Aft end for welding — FF 07-02-06 8

2-Inspect for foreign object as per QSI 024 — 07.02.13 8

3-Weld Aft End Plate as per QSI 004 & Dwg D3078 — 07.02.13 8
A/R Aluminum Rod M000237

4-Grind End Plate flush — 07.02.14 8

(PTO)

Seq. #:	Machine Or Operation:	Description :
19.0	QC9	VISUAL WELDING INSPECTION

Comment: VISUAL WELDING INSPECTION — 07/02/14 (8)

Seq. #:	Machine Or Operation:	Description :
20.0	QC5	INSPECT WORK TO CURRENT STEP

07-02-14 8

Comment: INSPECT WORK TO CURRENT STEP

Seq. #:	Machine Or Operation:	Description :
21.0	HAND FINISHING1	HAND FINISHING RESOURCE #1

(Touch-up Alodine)

Comment: HAND FINISHING RESOURCE #1
Touch Up Chemical conversion — 07-02-14 (8)

Seq. #:	Machine Or Operation:	Description :
22.0	POWDER COATING	POWDER COATING

m 103141

Comment: POWDER COATING
Powder Coat White Gloss (Ref: 4.3.5.1) as per QSI 005 4.3 — 07/02/20 (8)

Seq. #:	Machine Or Operation:	Description :
23.0	HAND FINISHING1	HAND FINISHING RESOURCE #1

m/103480

Comment: HAND FINISHING RESOURCE #1
Wing Walk as per Dwg D3078 and QSI 005 4.4 — 07/02/21 (8)

Seq. #:	Machine Or Operation:	Description :
24.0	QC3	INSPECT POWDER COAT/CHEMICAL CONVERSION

Comment: Inspect Powder Coat and Wing Walk — 07/2/26 (8)

Form: rprocess

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
07.02.14	20 b)	return to welding to install last and final rivet	[signature]	07.02.14	8		

Part No: ____________ PAR #: ______ Fault Category: ____________ NCR: Yes No DQA: _____ Date: ________

QA: N/C Closed: _____ Date: ________

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B: Initial Chief Eng	Action Description Chief Eng	Sign & Date	Verification Section C	Approval Chief Eng	Approval QC Inspector
07.02.14	20b)	broke rivet while installing last and final rivet	[signature] 07.02.14	took out rivet and drilled hole to remove broken rivet in step end. ~~replace~~ refill hole in end and grind smooth and replace rivet. as per QC 004	[signature] 07.02.14	[signature] 07.02.14	[signature] 07.02.14	[signature] 07.02.14

NOTE: Date & initial all entries

Date: Thursday, 12/14/2006 3:41:29 PM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: SHORT STEP ASSEMBLY HIGH SKID RH

Job Number: 29969

Part Number: D350591214

Job Number:

Seq. #:	Machine Or Operation:	Description :
25.0	PACKAGING 1	PACKAGING RESOURCE #1

Comment: PACKAGING RESOURCE #1
Pick Packing Kit

Seq. #:	Machine Or Operation:	Description :
26.0	D2182B	Neoprene Cushion-.750 bl

Comment: Qty.: 0.3000 f(s)/Unit Total : 2.4000 f(s)
Pick: Packing Kit

Qty	Part Number	Description	Batch
2	D2182b035	Rubber Cushion	B33397

Seq. #:	Machine Or Operation:	Description :
27.0	D2274	Radius Block

Comment: Qty.: 4.0000 Each(s)/Unit Total : 32.0000 Each(s)
Pick: Packing Kit

Qty	Part Number	Description	Batch
4	D2274	Radius Block	B33380

Seq. #:	Machine Or Operation:	Description :
28.0	D2856400	Abrasion Strip

Comment: Qty.: 0.6000 f(s)/Unit Total : 4.8000 f(s)
Pick: Packing Kit

Qty	Part Number	Description	Batch
1	D2856-400(7.2")	Abrasion Strip	29285

Seq. #:	Machine Or Operation:	Description :
29.0	D22301	Mounting Lug

Comment: Qty.: 2.0000 Each(s)/Unit Total : 16.0000 Each(s)
Pick: Packing Kit

Qty	Part Number	Description	Batch
2	D2230-1	Clamp	B32188

Cu 7/4/28

Seq. #:	Machine Or Operation:	Description :
30.0	D2712	Rubber Extrusion

Comment: Qty.: 0.5000 f(s)/Unit Total : 4.0000 f(s)
Rubber Extrusion
4 X 3"
Batch: B2642 ~~30~~

Form: rprocess

Dart Aerospace Ltd

W/O:	WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: ____________________ **PAR #:** _______ **Fault Category:** __________________ **NCR:** Yes No **DQA:** _____ **Date:** _________

QA: N/C Closed: _____ **Date:** _________

NCR:	WORK ORDER NON-CONFORMANCE (NCR)							
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Thursday, 12/14/2006 3:41:29 PM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services
Drawing Name: SHORT STEP ASSEMBLY HIGH SKID RH

Job Number: 29969
Part Number: D350591214

Job Number:

Seq. #:	Machine Or Operation:	Description :
31.0	D22303	Mounting Lug

Comment: Qty.: 2.0000 Each(s)/Unit Total : 16.0000 Each(s)
Pick: Packing Kit
Qty Part Number Description Batch
2 D2230-3 Clamp B29601 14X
B29646 2C

Seq. #:	Machine Or Operation:	Description :
32.0	AN335A	Bolt

Comment: Qty.: 6.0000 Each(s)/Unit Total : 48.0000 Each(s)
Pick: Packing Kit
Qty Part Number Description Batch
6 AN3-35A Bolt M102337

Seq. #:	Machine Or Operation:	Description :
33.0	AN411A	Bolt

Comment: Qty.: 6.0000 Each(s)/Unit Total : 48.0000 Each(s)
Pick: Packing Kit
Qty Part Number Description Batch
6 AN4-11A Bolt M100743

Seq. #:	Machine Or Operation:	Description :
34.0	AN960JD10	Washer

Comment: Qty.: 4.0000 Each(s)/Unit Total : 32.0000 Each(s)
Pick: Packing Kit
Qty Part Number Description Batch
4 AN960JD10 Washer M100274

Seq. #:	Machine Or Operation:	Description :
35.0	AN960JD416	Washer

Comment: Qty.: 12.0000 Each(s)/Unit Total : 96.0000 Each(s)
Pick: Packing Kit
Qty Part Number Description Batch
12 AN960JD416 Washer M103338

Dart Aerospace Ltd

W/O:	WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: ____________________ **PAR #:** _______ **Fault Category:** __________________ **NCR:** Yes No **DQA:** _____ **Date:** _________

QA: N/C Closed: _____ **Date:** _________

NCR:	WORK ORDER NON-CONFORMANCE (NCR)							
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Thursday, 12/14/2006 3:41:29 PM
User: Kim Johnston

8

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services **Drawing Name:** SHORT STEP ASSEMBLY HIGH SKID RH

Job Number: 29969 **Part Number:** D350591214

Job Number:

Seq. #:	Machine Or Operation:	Description :
36.0	MS21042L3	Nut

Comment: Qty.: 2.0000 Each(s)/Unit Total : 16.0000 Each(s)
Pick: Packing Kit
Qty Part Number Description Batch
2 MS21042L3 Nut (or -3) M102217

Seq. #:	Machine Or Operation:	Description :
37.0	MS21042L4	Nut

Comment: Qty.: 6.0000 Each(s)/Unit Total : 48.0000 Each(s)
Pick: Packing Kit
Qty Part Number Description Batch
6 MS21042L4 Nut (or -4) M103349

Seq. #:	Machine Or Operation:	Description :
38.0	AN413A	Bolt

Comment: Qty.: 4.0000 Each(s)/Unit Total : 32.0000 Each(s)
Bolt
Batch: M102957 11X M103177 21X 07/2/22 (8)

Seq. #:	Machine Or Operation:	Description :
39.0	QC4	INSPECT 100% KITS FOR COMPLETENESS

ml 07/02/23 x8

Comment: INSPECT 100% KITS FOR COMPLETENESS Rest check D2230-1

Seq. #:	Machine Or Operation:	Description :
40.0	PACKAGING 1	PACKAGING RESOURCE #1

Comment: PACKAGING RESOURCE #1
Identify and pack for shipping as per PPP D350-591-214
Location:____________
PPP Rev: C

07/2/26 (8) 07/02/26 (8) (8)

Seq. #:	Machine Or Operation:	Description :
41.0	QC21	FINAL INSPECTION/W/O RELEASE

Comment: FINAL INSPECTION/W/O RELEASE 07/02/27

Job Completion

U 07.02.27

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: ____________________ **PAR #:** _______ **Fault Category:** __________________ **NCR:** Yes No **DQA:** _____ **Date:** _________

QA: N/C Closed: _____ **Date:** _________

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DESIGN	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA
CHECKED	APPROVED	DRAWING NO. D3078 — REV. A — SHEET 1 OF 2
DATE 02.09.11		TITLE STEP ASSEMBLY, HI SHORT — SCALE NTS
A	02.09.11	NEW ISSUE

DART

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Part No.	Description	QTY -041	QTY -042
D3078-041	**Step Assembly, High Short (LH)**	**X**	
D3078-042	**Step Assembly, High Short (RH)**		**X**
D2622-60	STEP EXTRUSION	1	1
D3063-1	SUPPORT	1	1
D3065-041	LEG ASSEMBLY	1	1
D3066-1	SPACER	2	2
D3067-1	END PLATE	2	2
MS20600AD4W4	RIVET	16	16

GENERAL NOTES:

1) –041 SHOWN, FOR –042 INSTALL D3063-1 SUPPORT OPPOSITE SIDE
2) WELD PER DART QSI 004
3) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
   POWDER COAT ASSEMBLY WHITE (4.3.5.1) PER DART QSI 005 4.3
   BLACK ANTI-SKID PAINT PER DART QSI 005 4.4
4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.

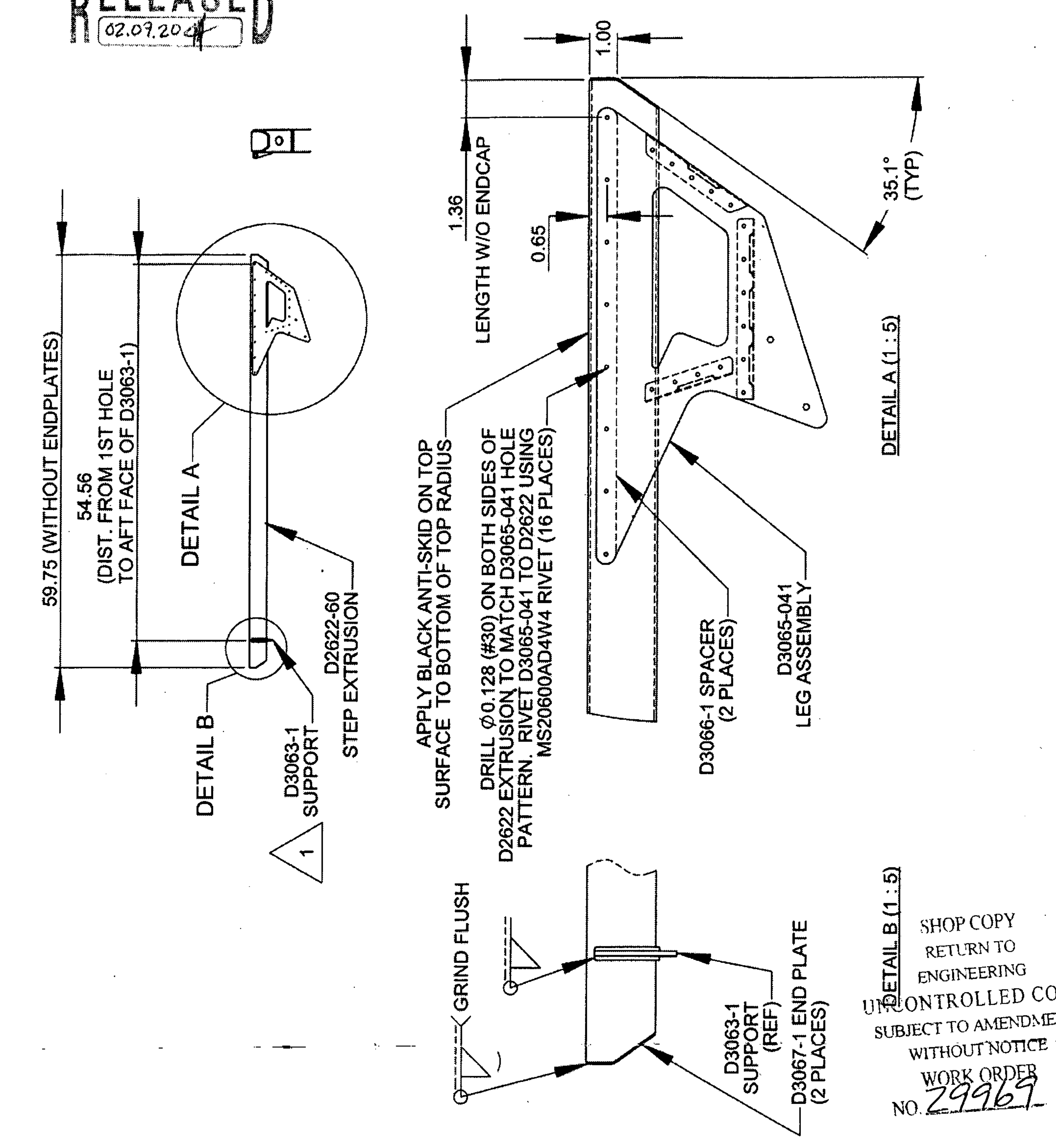
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WORK ORDER NO 29969

DESIGN	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA
CHECKED	APPROVED	DRAWING NO. D3078 — REV. A — SHEET 2 OF 2
DATE 02.09.11		TITLE STEP ASSEMBLY, HI SHORT — SCALE 1:20

DART

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RELEASED 02.09.20



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WORK ORDER
NO. 29969